

PROGRAM SCHEDULE

International Conference on “Materials Science and Mathematics for Advanced Technology”- MSMAT-2026

Session 1: Chemistry

Date: 05-02-2026		Afternoon (2.30 pm- 4.30 pm)	
ID	Paper Title and Authors		
MAT 2625	Physicochemical Characterization and Comparative Evaluation of Biodiesel from Niger and Cotton Oils Authors: N.K. Millerjothi, S. Kavın Adhithan, R.L. Krupakaran, R. Satya Meher, P. Ravishankar, Z. Fathima Shahiba, B. Sri Poorani		
MAT 2680	A density functional study of H ₂ storage on lithium decorated novel nitrogen-doped Authors: Tapas Kumbhakar, Smruti Ranjan Parida, Subhasis Sarkar, Rajendra Singh, Dhrubajyoti Devsharma, Jagannath Pradhan, Soumendra Das, Sridhar Sahu		
MAT 2686	Effective reduction of p-nitroaniline using highly dispersed carboxymethyl cellulose stabilized gold nanoparticles Authors: CH. Lakshmi Prasanna, Santosh Kumar Bindhani, Venu Reddy, T.V.Nagalakshmi, V. Swaminatham		
MAT 2688	Synthesis and Bioassay study of Tetrahydro-6H- [1,3,4]thiadiazolo [2,3-b] quinazolin-6-one Derivatives Promoted by CuI ₂ as a catalyst Authors: B. Iswarya Lakshmi, Dr. Radha Krushna .P, Dr. N.Krishna Rao		
MAT 2690	Transition metal catalyst promoted to Synthesis and In-Vitro Studies of thiadiazolo [3, 2-a] pyrimidine-6-carbonitrile analogues Authors: T.Mohini, Dr.Jitendra kumar sahu, Dr. N.Krishnarao		
MAT 2641	ISOLATION AND EXTRACTION OF POLYHYDROXYALKANOATES FROM MICROORGANISMS USING DEEP EUTECTIC SOLVENTS Authors: Navni Hegde, Archisha Nambiar, Bhargavi S, Dharshini Karthik, Sumathra Manokaran, A V Narayan, Shivandappa, Ajeeth Kumar Srivastava		
MAT 2714	In-Silico Screening of Consumable Ligands for Flunitrazepam Molecular Recognition		

	Authors: ADVAITH V RAMBHATLA, BHARGAVI S, DHARSHINI K, HARI SUADARSAN CHINTA, Sumathra Manokaran
MAT 2717	Ionic Gelation-Based Encapsulation of Nisin in Chitosan Nanoparticles Authors: Kaavyashree V , Srijeeta Ghosh,Tanya Prashanth
MAT 2662	Leveraging Fruit Peel Extracts and Enzymes from Waste for Sustainable Carbon Capture and Utilization: Development and Evaluation of Eco-Friendly Hand Sanitizers Authors: ANESH S A, LIPIKA S, RAVI SHANKAR S, SHRIYA VIKRAM, SLOKA KUMARSWAMY, SUMATHRA MANOKARAN, A H MANJUNATH REDDY
MAT 2714	In-Silico Screening of Consumable Ligands for Flunitrazepam Molecular Recognition Authors: HARI SUADARSAN CHINTA,ADVAITH V RAMBHATLA,BHARGAVI S,DHARSHINI K,Sumathra Manokaran

Session 1: Physics

Date: 06-02-2026		Morning (9.15 am- 1.00 pm)
ID	Paper Title and Authors	
MAT 2620	Innovation in Low-Cost Air-Oxygen Ventilator with Integrated SpO ₂ , Monitoring Authors: Shrinivasa D, Arun Kumar K N, Mohith C, Dhanush Vishwakarma S, Nandish M K, Prashanth M	
MAT 2624	Impact of Heater Geometry on Thermal and Electro-Mechanical Behavior of MEMS Microhotplates Authors: Celine Sony, Hannah Maju, Krishnananda S, Abner Sebastian Lopez, Akul Prasanth, Lekshmi M S, Deepthi Jayan K, Priya S, and Aparna George	
MAT 2643	"Sustainable Hydrogen Production from Sericulture Waste: Current Technologies, Challenges, and Future Prospects" Authors: Vinay M N, R VARA PRASAD KAVITI,D Prathap,Fazil Nalband,Narebdra N,M.M Noor,Chethan Mariyanna Adinarayana Reddy	
MAT 2652	Gamma Irradiation and Thermal Cycling Effects on Transformation Behavior of Heat-Treated NiTi Shape Memory Alloys Authors: Murari M S, Rahina M K, Swaroop K, Gururumurthy S C, Yashodhara I	
MAT 2659	"Experimental Study of the Effect of Load on the Emissions and Engine Performance of a Dual-Fuel Diesel Engine Powered by Sericulture Waste " Authors: Vinay M N, R VARA PRASAD KAVITI,D Prathap,Fazil Nalband,Narendra N,M.M Noor,Chethan Mariyanna Adinarayana Reddy	
MAT 2661	Aluminium-Gallium Co-doped ZnO: rGO Nanocomposite Electrode for Supercapacitor Applications Authors: N. Rashmi, Felcy Jyothi Serrao, N. B. Rithin Kumar, M. B. Savitha	
MAT 2670	Incorporation of Marine Sand as a Sustainable alternative in Alkali-Activated Concrete Authors: Urmil Dave, Sonal Thakkar, Abhishek Chanda, Shivanjali Rawat, Bhoomi Andharia.	
MAT 2671	INFLUENCE OF LUBRICATION METHODS ON CYLINDRICAL GRINDING EFFICIENCY: DRY, FLOODED AND MQL CONDITIONS Authors: Sagar M Baligheid, N.E. Arun Kumar, Gavaskar T, Murugapoopathi.S, F. Antony Leo	
MAT 2672	PROCESS OPTIMIZATION FOR ENERGY-EFFICIENT CENTERLESS GRINDING:CRITICAL ANALYSIS AND INDUSTRIAL IMPLEMENTATION	

	Authors: Sagar M Baligheid, N.E. Arun Kumar, Gavaskar T, Murugapoopathi.S, F. Antony Leo
MAT 2674	Characterization of the microstructure and tribological properties of SS316L fabricated by the fused deposition modelling technique Authors: Sagar M Baligheid, Fazlur Rahaman, Chethan Kumar G
MAT 2678	SF-Au/CMC Bionanocomposite Films Electrical and UV-Shielding Properties Authors: S. Thripathi, S. Asha, and Y. Sangappa
MAT 2704	Casting-Oriented Synthesis of CMC/In ₂ O ₃ Nanocomposites with Engineered Microstructure for Optically Enabled Antibacterial Applications Authors: Widad Dhahir Kadhim, Abdullah Abdulkareem Fayyadh, Mohammed L. Adnan, Mohanad H. Meteab, Musaab Khudhur Mohammed, Ahmed Hashim
MAT 2705	INVESTIGATION ON THE INFLUENCE OF 3D PRINTING PARAMETERS ON DENSITY OF INVAR-36 BY SELECTIVE LASER MELTING Authors: jeush Benjamin, Francis Xavier L, Ravi Kumar Varma
MAT 2707	Structural and Optical Properties of Al-doped NiO Nanoparticles Synthesized by Chemical Co-Precipitation Method Authors: S.Vasavi Devi, B. Ayesha, B. Sreenivasulu, M . Hari Prasad Reddy, S.Venkatramana Reddy
MAT 2708	Experimental Analysis on Condensation of Steam with Nitrogen gas on Steel, Aluminium and Copper Surfaces Authors: Nagaprasad K.S, Abhinav.T, Srinidhi S B, Sudha Deepti. K, Deepak K,Kamesh M R
MAT 2711	Performance Analysis of FinFET Based Digital Circuits Authors: Krishnapriya S, Binu Manohar
MAT 2709	A Low-Cost Real-Time Digital Power Converter Design Using LAUNCHXL-F28027 for Photovoltaic Applications Authors: Russul H. Mohammed ,Rasha Akar Abbood , Najlaa Hassoon Salman , Mohannad Jabbar Mnati , Saad Mutashar, and Alex Van Den Bossche
MAT 2689	SEM-driven characterization of 3D-printed UHV hole Authors: Vineet Kumar, Peter KÄ°Äj, JiÄ™Ä HajnyÄj, Michal Hejduk
MAT 2692	Investigation on Barrier Thickness Variation Effect on AlInN/GaN based MOSHEMT Performance Authors: ACHINTA BAIDYA, NILADRI PRATAP MAITY, ABHIJYOTI GHOSH, ZONUNMAWII, SANTANU NAYAK, ROMAN KANTI CHAKMA
MAT 2681	Reasonable Assessment of Conventional and Deep Learning-Based Clustering Models for Biomedical High-Dimensionality Challenges Authors: Mustafa Shareef Khanjar

MAT 2695	Studies on effect of water proofing paint on the performance of the solar PV module Authors: Kapilan Natesan, Ashok Kumar K, Jegadeeswaran N, Sunil S, Shivarishika K
MAT 2645	Analysis and Mitigation of Process-Induced Defects in FDM-Based Additive Manufacturing of ABS Components Authors: Balachandra P Shetty, Sudheer Reddy J, Viraj G R, Praveena B A

Session 1: Mathematics

Date: 06-02-2026		Afternoon (2.00 pm – 4.00 pm)
ID	Paper Title and Authors	
MAT 2666	Encryption and Decryption Process Using Number Theory Techniques and Simple graph Authors: Bhavya K, Vasudeva	
MAT 2667	Exploring Distance Magic Labeling in Double star Graphs Authors: Chaithra K	
MAT 2697	Jacobian-Based Velocity Control Framework for a Five-Link Inchworm-Inspired Climbing Robot Authors: Navya Manjegowda and Muralidhara	
MAT 2698	Bayesian Small-Area Estimation of District-Level Diabetes Prevalence in India Using Environmental and Demographic - Geo Covariates Authors: L. Raghavendra, P. Ramakrishna Reddy, B. Sarojamma	
MAT 2719	A Comprehensive Review of Alumina Nanofluids for Heat Transfer Applications Authors: Shivani S, Kumudakshi, Venkatesh Babu K P, Vijay V S	
MAT 2689	SEM-driven characterization of 3D-printed UHV hole Authors: Vineet Kumar, Peter KÅ°Åi, JiÅ™Å HajnyÅi, Michal Hejduk	
MAT2 718	A Comparative Analysis of Classical and Kernel-Enhanced GARCH Models for Bitcoin Volatility with Oil Price Effects Authors: Ashwini Kumari, Naveena, Manjula	
MAT 2720	On A New Class of Integrals Involving generalized Hypergeometric Function Authors: Ambika N, Shantha Kumari Kurumujji	